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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/710,359	07/03/2004	Argy Petros		4358
36988	7590	08/19/2005	EXAMINER	
THINK WIRELESS, INC. 6208 GRAND CYPRESS CIRCLE LAKE WORTH, FL 33463			VY, HUNG T	
			ART UNIT	PAPER NUMBER
			2821	

DATE MAILED: 08/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 10/710,359	Applicant(s) PETROS, ARGY	
	Examiner Hung T. Vy	Art Unit 2821	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 07/03/2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 7/3/04 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION Specification**

1. The specification has been checked to the extent necessary to determine the presence of possible minor errors. However, the applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

### **Drawings**

2. The drawings are objected because Fig. 1 is not labeled correctly.

Figure 1 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### **Claim Rejections - 35 USC § 102**

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical

Art Unit: 2821

Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000.

Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

4. Claims 1-3 are rejected under 35 U. S. C. § 102 (e) as being anticipated by Mikkola, U.S. Pub. No. 2004/0145527.

With respect to claims 1-2, Mikkola discloses in Fig. 4 a-b, an antenna comprising a patch 440 disposed above a ground plane 410, and a probe 422 disposed between said patch 440 and said ground plane 410, said probe 422 having a helical shape or a meandering shape and being substantially normal to said ground plane 410 (See figs. 3-4), said antenna further comprising means for connecting said probe 422 to means for transmitting a signal to or from said antenna, wherein said probe is adapted to be electromagnetically coupled to said patch 440 (See fig. 4).

With respect to claim 3, Mikkola discloses probe 422 is etched on a substrate 403 and said probe 422 being substantially normal to said patch (See fig. 4).

#### **Claim Rejections - 35 U.S.C. § 103**

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 2821

6. Claims 4-7 are rejected under 35 U.S.C. 103 (a) as being unpatentable over Mikkola, U.S. Pub. No. 2004/0145527 in view of Sreenivas et al., U.S. Patent No. 6795,020.

Regarding claims 4-5, Mikkola discloses in fig. 4 a-b, an antenna comprising a patch 440 disposed above a ground plane 410, and a probe 422 disposed between said patch 440 and said ground plane 410, said probe 422 having a helical shape or a meandering shape and being substantially normal to said ground plane 410 (See figs. 3-4), said antenna further comprising means for connecting said probe 422 to means for transmitting a signal to or from said antenna, wherein said probe is adapted to be electromagnetically coupled to said patch 440 (See fig. 4). Mikkola does not disclose a plurality of patches. However, Sreenivas et al. discloses a plurality of patches 104,108 (See fig. 1) and each said patch 104,108 having a respective probe 152,156. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the antenna of Mikkola by arranging a plurality of patches, in lieu of one, so as to be able to operate at multiple frequencies since such an arrangement of the plurality of patches for the stated purpose has been well known in the art as evidenced by the teaching of Sreenivas et al. (See column 2, line 25-30 and line 41-45).

With respect to claims 6-7, Mikkola discloses that the probe 422 is etched on a substrate 403 and said probe 422 being substantially normal to said patch (See fig. 3-4), and at least one said probe 422 having a helical shape and at least one said probe 422 having a meandering shape (See fig. 4).

Art Unit: 2821

7. Claims 8-11 are rejected under 35 U.S.C. 103 (a) as being unpatentable over Mikkola, U.S. Pub. No. 2004/0145527 in view of Applicant Admitted Prior Art in fig 2 (AAPA).

With respect to claims 8-9, Mikkola discloses an antenna comprising a patch 340,440 disposed above a ground plane 410, and a probe 422 disposed between said patch 440 and said ground plane 410, said probe 422 having a helical shape or a meandering shape and being substantially normal to said ground plane 410 (See figs. 3-4), said antenna further comprising means for connecting said probe 422 to means for transmitting a signal to or from said antenna, wherein said probe is adapted to be electromagnetically coupled to said patch 440 (See fig. 4). Mikkola does not disclose two patches of different sizes and disposed a different distance above a ground plane. However, AAPA in fig. 2 shows two of patches 21,25 of different sizes and disposed a different distance above a ground plane (See fig. 2). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the antenna of Mikkola by, in lieu of one, arranging two patches of different sizes and disposed a different distance above a ground plane so the antenna system can be able to operate at multiple frequencies since such an arrangement of the patches of different sizes and different distance from the ground plane for the stated purpose has been well known in the art as evidenced by the teaching of AAPA (See fig. 2).

With respect to claims 10-11, Mikkola discloses probe 422 is etched on a substrate 403 and said probe 422 being substantially normal to said patch (See fig. 3-

Art Unit: 2821

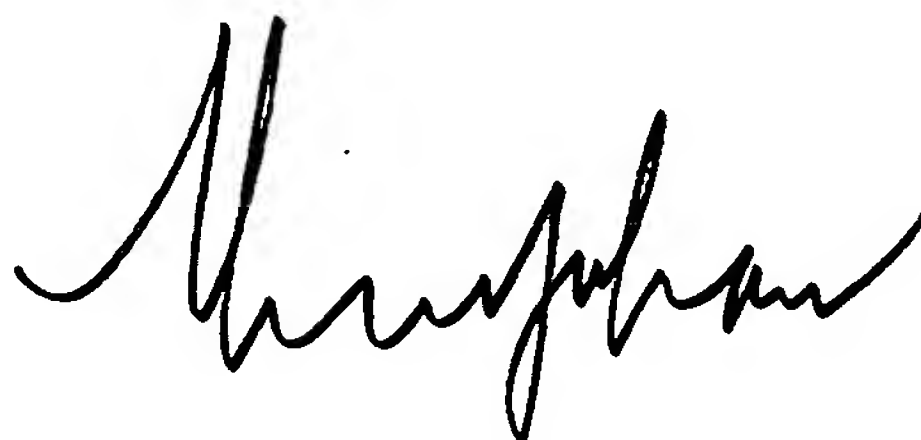
4), and at least one said probe 422 having a helical shape and at least one said probe 422 having a meandering shape (See fig. 4).

### Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hung Vy whose telephone number is (571) 272-1954. The examiner can normally be reached on Monday-Friday 8:30 am - 5:30pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Don Wong can be reached on (571) 272-1834. The fax numbers for the organization where this application or proceeding is assigned are (571) 273 8300

Information regarding the status of an application may be obtained from the patent Application Information Retrieval (PAIR) system. Status information for published application may be obtained from either private Pair or Public Pair. Status information for unpublished applications is available through Private Pair only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have question on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Hung T. Vy  
Art Unit 2821  
August 9, 2005.



**THUY V. TRAN**  
**PRIMARY EXAMINER**